

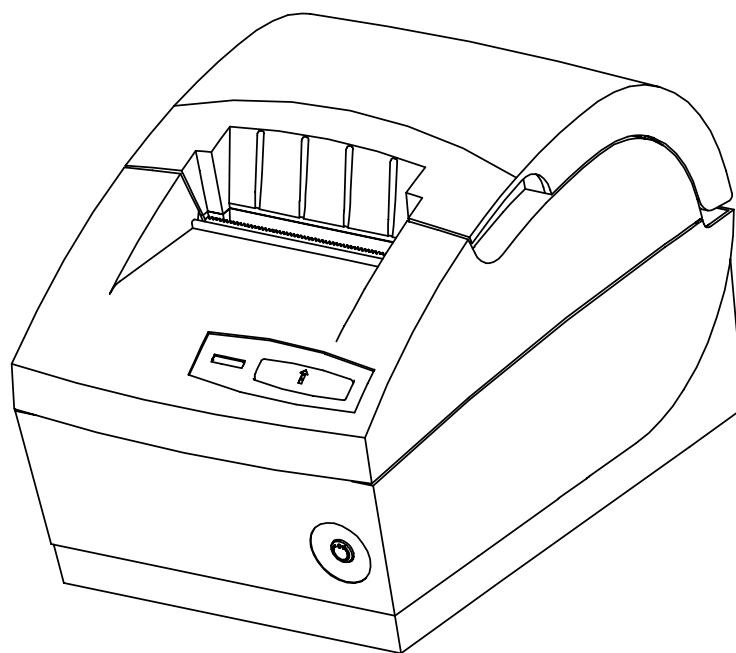


THERMAL PRINTING SOLUTIONS

TPOS PRINTER SERIES

SET-UP GUIDE

Reference 3107243 Issue A
April 2003



AXIOHM

1, rue d'Arcueil, BP 820
92542 MONTROUGE CEDEX
FRANCE

Tel : (33) 1 58 07 17 17, Fax : (33) 1 58 07 17 18
www.axiohm.biz

CONTENTS

1	YOUR PRINTER.....	2
1.1	Package.....	2
1.2	General description	2
1.3	Printer location.....	3
2	PLUGGING & CONNECTING YOUR PRINTER	4
2.1	Connecting the power supply.....	4
2.2	Connecting the printer.....	4
2.3	Connector pin out / features	5
2.3.1	Power connector	5
2.3.2	Communications interface connectors	5
2.3.3	Drawer kick-out connector (optional).....	5
2.3.4	USB connector.....	6
2.4	General safety specification	6
3	LOADING PAPER.....	7
4	CUTTING FEATURES	8
5	STANDARD DEFAULT SETTINGS.....	8
6	DUTY CYCLE.....	8
7	POWER SUPPLY KITS.....	8
8	TROUBLESHOOTING	9
8.1	Light indicator	9
8.2	Problems & Solutions.....	9
8.2.1	Printer Problems	9
8.2.2	Printer LED Diagnostic	10
8.2.3	Printing Problems.....	11
8.2.4	Auto Cutting Problems.....	12
9	CLEANING YOUR PRINTER.....	12

1 YOUR PRINTER

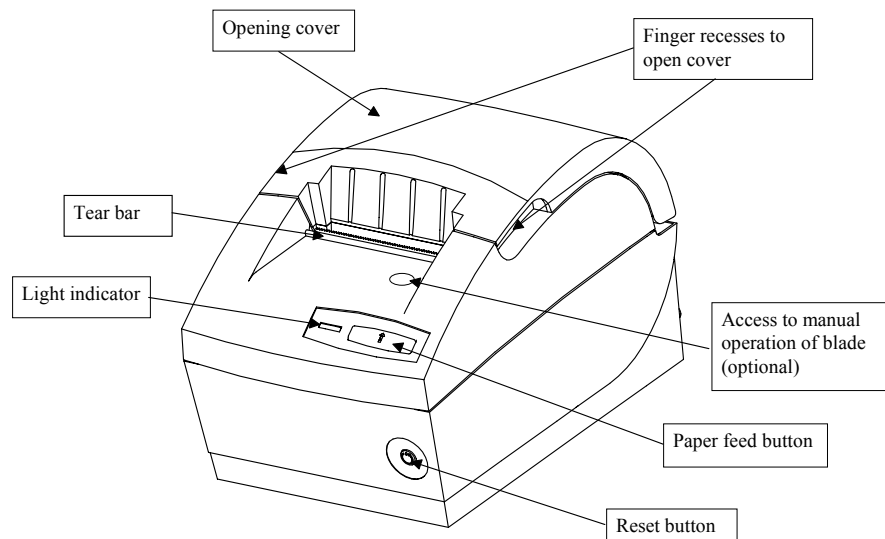
1.1 Package

The packing box contains:

- Printer
- Power supply (optional)
- Power cable to be set between power supply and power network (optional)
- Set Up Guide

1.2 General description

The TPOS is a complete printer designed with the clamshell easy paper loading system.



Note 1: when resetting the printer, every running operation is stopped and all information sent before resetting are lost.

Note 2: to print a self-test ticket, activate both On and paper feed buttons according to the following instructions:

- Switch the power Off.
- Activate the paper feed button while turning the power On.
- Release the On/Off button keeping the paper feed button pushed.
- Release the paper feed button as soon as the printer starts to print the self-test ticket.

1.3 Printer location

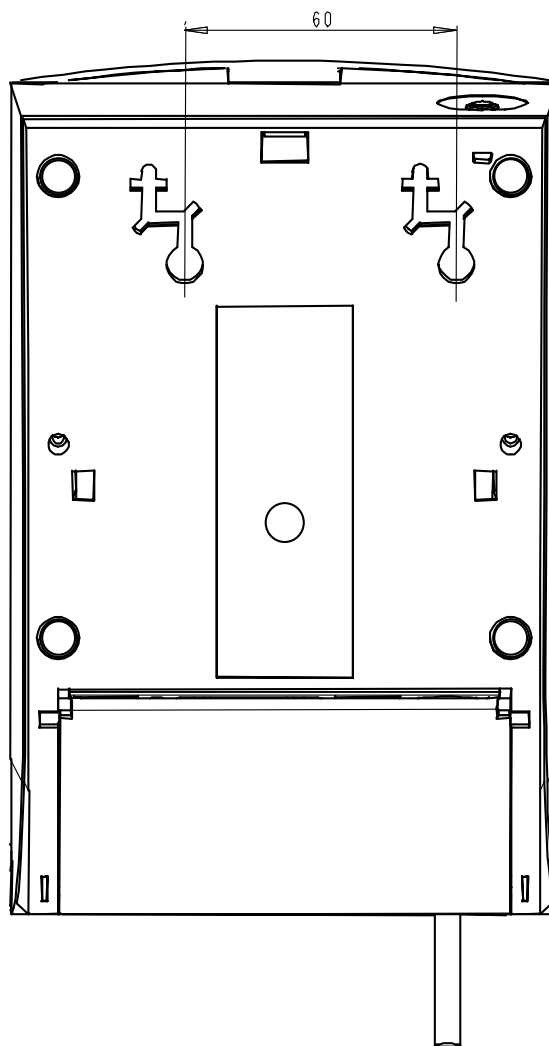
This printer can be used either horizontally or wall mounted (fixing holes on printer bottom for 3 mm screws, not included).

The external dimensions (W×L×H) are: 121×185×125 mm (with cover closed).

The printer should be set on a stable holder in a place where the following conditions are achieved:

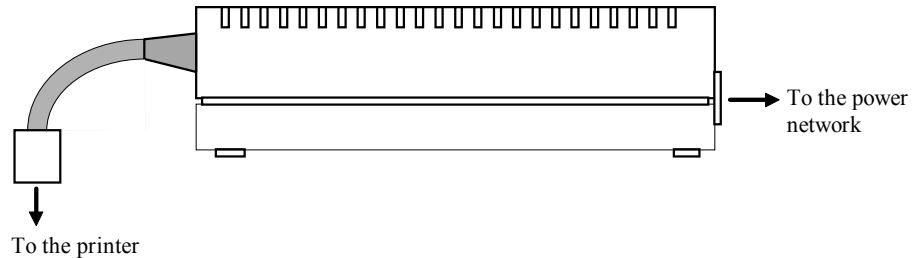
- temperature from 0 to 50°C for operating (-40 to +70 for storage).
- no risk of water exposure.
- no mechanical vibration or stress.

Wall mounting diagram:



2 PLUGGING & CONNECTING YOUR PRINTER

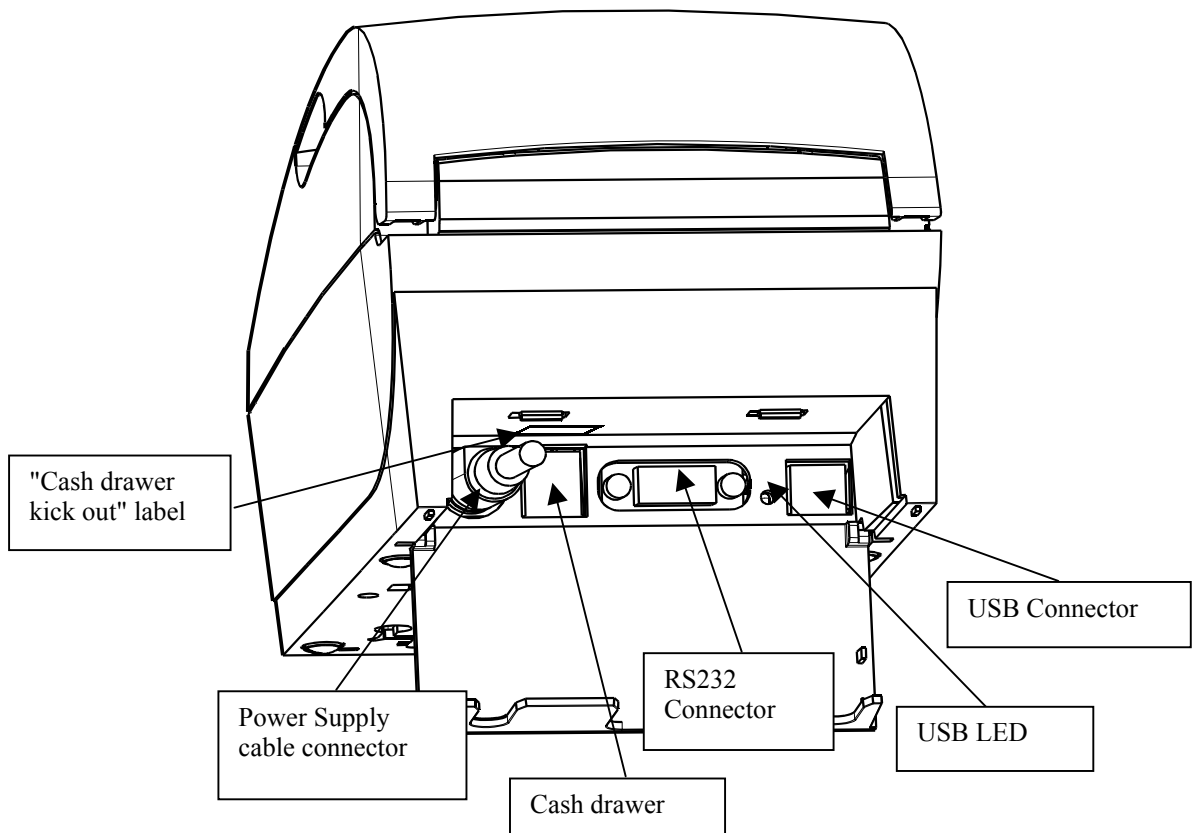
2.1 Connecting the power supply



The cable to connect the printer to the power network is included in the package.

2.2 Connecting the printer

Connections have to be set at the rear of printer: open the rear-door and set the power supply and interface cables as shown on the following drawing.



Note: All connectors should be SELV types in order to safety standards (Safety extra low voltage).



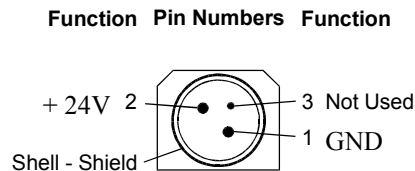
2.3 Connector pin out / features

To reduce the electromagnetic emissions and susceptibility, all cables should be shielded. If you are not using cables supplied by Axiohm for this purpose, make sure that your cables match the printer and are rated at the appropriate voltage and current capacities.

***Use of an inappropriate cable may seriously damage your printer!**

2.3.1 Power connector

The connector is a shielded 3-pin female mini-Din plug.

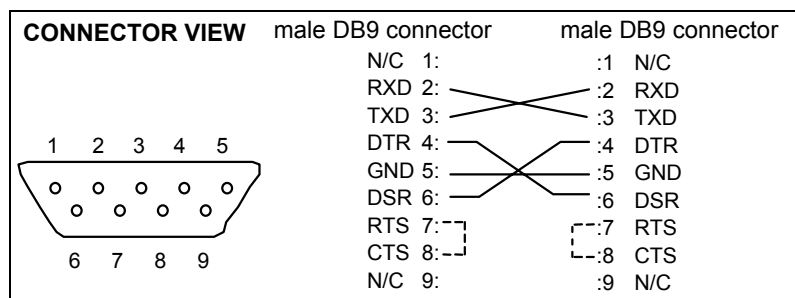


2.3.2 Communications interface connectors

RS232 interface uses 9-pin D-type male connectors.

RS232 Connector

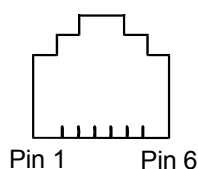
Cable for DTR/DSR protocol



Note: RTS/CTS should be tied together if using DOS print commands on a PC station.

2.3.3 Drawer kick-out connector (optional)

The following illustration shows the pinouts for the cash drawer connector on the printer.



Pin Number	Cash Drawer Connector
1	Switch (-ve)
2	Drawer 2 Solenoid
3	+24 Volts (to Solenoid +ve)
4	Status Switch +
5	Drawer 1 Solenoid (common with drawer2)
6	Frame Ground

The connector used to open a cash drawer and monitor, whether the drawer is opened or closed, is a 6-pin modular RJ11 connector.



2.3.4 USB connector

The connector is located at the rear of the printer, and is of B-type. The maximum recommended cable length is 3 meters. Refer to USB specification rev 1.1, chapter 6, for more information.

USB PARAMETERS

Axiohm's implementation of USB complies with "Universal Serial Bus Specification" revision 1.1.

2.3.4.1 Capabilities:

TPOS is only a device, and doesn't provide hub capabilities. Full speed communications (12Mbps/sec) are supported.

2.3.4.2 Connector:

The connector is located at the rear of the printer, and is of B-type Refer to USB specification rev 1.1 chapter 6 for more information.

2.3.4.3 Interface:

The data is exchanged between host and printer via four endpoints:

1) Endpoint 0x00: CONTROL

Default endpoint

2) Endpoint 0x02: BULK OUT

For transmission of all printable data and commands from host to printer

3) Endpoint 0x82: BULK IN

For return of all synchronous data, status or other types of information except unsolicited status mode messages, from printer to host

4) Endpoint 0x01: INTERRUPT OUT

For transmission of real time commands from host to printer.

2.3.4.4 Other information:

Vendor Id

Axiohm USB Vendor Id = 0x05D9

Product Id

TPOS Product Id = 0xA000

2.4 General safety specification

All communication connectors should be SELV connectors in order to meet safety standards.

Use of an inappropriate cable or power supply may seriously damage your printer and affect safety standards of the printer. The power supply main connector should be accessed to enable power disconnection.

The power supply cable is a disconnect device.

Power supply input requirements: 110/240 VAC, 50/60 Hz.

Operating temperature: 0 to 50°C.



3 LOADING PAPER

The Clamshell design allows easy paper loading.

To load paper:

- Open the cover using finger recesses.
- Set the paper roll as indicated on the inside of the cover (see drawing).
- Close the cover leaving a small length of paper out.
- Cut the small length left with the tear bar.

Your paper roll is set.

Notes:

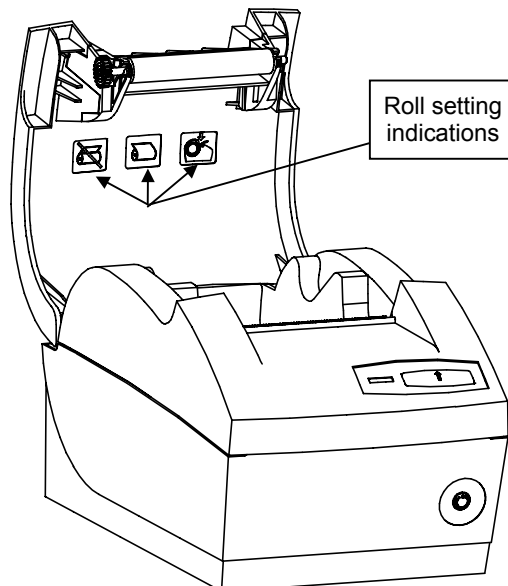
The paper used should be recommended by AXIOHM.

The paper width must be 58^{0/-0.3} mm.

The maximum paper roll diameter is 90 mm.

Warning: If the paper width should be less than 57.7 mm, it is recommended to check that the printing is centered according to the paper.

The paper must not be attached to the paper roll spindle.





4 CUTTING FEATURES

The printer is equipped with a high performance guillotine cutter that can provide total and partial cuts by software command.

The partial cut leaves a 2 mm center tab.

5 STANDARD DEFAULT SETTINGS

Print density:	100%
Pre heating:	Off
Baud rate:	115200
Parity:	None
Flow control:	Dtr/Dsr
Reception error:	Ignore

6 DUTY CYCLE

25°C	Duty cycle is 30%
50°C	Duty cycle is 20%

7 POWER SUPPLY KITS

<i>Reference</i>	<i>Designation</i>
A3107446	POWER SUPPLY KIT TPOS EU (12 items/kit)
A3107447	POWER SUPPLY KIT TPOS US (12 items/kit)
A3107448	POWER SUPPLY KIT TPOS GB (12 items/kit)
A3107589	POWER SUPPLY KIT TPOS AUST (12 items/kit)



8 TROUBLESHOOTING

Axiohm printers are simple and generally trouble-free, but from time to time minor problems may occur. Follow these procedures to determine the cause and resolution of any problems the printer may be having. If the procedures in this section do not correct the problem, contact a service representative.

8.1 Light indicator

When light is on continuously, the printer is ready to operate.
When light is flashing, an error occurs.

8.2 Problems & Solutions

8.2.1 Printer Problems

Problem	What to Do
Printer does not function when turned on.	Check that printer cables are properly connected on both ends. When using the USB interface, check if the USB LED indicates data transmission. Check if the On/Off button is in On position. Check that the host or power supply is getting power.
Printer LED is off.	Check the power-supply and cable connections.
Printer LED is continuously on but printer does not operate.	Check if the interface cable is properly connected.
Printer LED is flashing.	<u>Auto-cutter</u> : Check that the mobile blade does not interfere with the cover blade. Remove the Paper jam button. Using a screwdriver; turn the gear until the blade disappears. Then open the cover and check that there is no paper jam. Important : Do not press on the switch when the cover is opened. Then close the cover. If the LED is still flashing, see LED diagnostic. <u>Manual cutter</u> : Check that the cover is properly closed; if not close it. Open the cover and make sure there is paper left in the printer; if not, remove the paper roll core, place a new paper roll as indicated in the chapter "Loading paper". See LED diagnostic. Open the cover and make sure there is no paper jam. In case of paper jam, unwind the paper until no more wrinkle appear; close the cover with the wrinkled part out and cut it with the tear bar. If the LED is still flashing, see LED diagnostic.



8.2.2 Printer LED Diagnostic

Problem	Possible Causes	What to Do
LED, slow continuous flashing (1 flash / sec or more).	Out of paper.	Put in a new paper roll.
	Cover is off.	Put the cover on.
	Knife is unable to home.	Contact your authorized service representative.
	Print head is too hot.	Turn the printer off (<i>unplug</i>).
	Voltages are out of range.	Contact your authorized service representative.
Flashing LED in various combinations.		These indicate serious problems. Contact your authorized service representative.
Fast continuous flashing of LED:	Main Program CRC Test Failure.	
	<u>Auto cutter</u> : The cover is opened and the cutter is not in its normal position.	Turn the gear using a screwdriver until the LED flashes slowly. Check that the mobile blade is not interfering with the cover. Then close the cover.
	<u>Manual cutter</u> : (no mobile blade) You are in auto cutter mode.	Open the cover and refer to the chapter "Set knife option" to disable the knife. If the problem continues, please contact your authorized service representative.



8.2.3 Printing Problems

Problem	Possible Causes	What to Do
Print quality is deteriorating.	Print head may be getting dirty.	See next chapter "Cleaning your printer".
Colored stripe on the receipt.	Paper is low.	Change the paper.
Receipt does not come out all the way.	Paper is jammed.	<p>Auto-cutter: Check that the mobile blade does not interfere with the cover blade.</p> <p>Remove the Paper jam button. Using a screwdriver; turn the gear until the blade disappears.</p> <p>Then open the cover and check that there is no paper jam.</p>
Printer starts to print, but stops while the receipt is being printed.	Paper is jammed.	<p>Important: Do not press on the switch when the cover is opened.</p> <p>Then close the cover.</p> <p>If the LED is still flashing, see LED diagnostic.</p> <p>Manual cutter: Check that the cover is properly closed; if not close it.</p> <p>Open the cover and make sure there is paper left in the printer; if not, remove the paper roll core, place a new paper roll as indicated in the chapter "Loading paper". See LED diagnostic.</p> <p>Open the cover and make sure there is no paper jam. In case of paper jam, unwind the paper until no more wrinkle appear; close the cover with the wrinkled part out and cut it with the tear bar.</p> <p>If the LED is still flashing, see LED diagnostic.</p>
Print is light or spotty.	Paper roll is loaded incorrectly.	Check that the paper is loaded properly.
	Thermal print head is dirty.	Use recommended thermal receipt paper. See next chapter "Cleaning your printer".
	Variations in paper.	Increase print density in "Set Hardware Options" of printer Configuration Menu as needed.
Vertical column of print is missing.	This indicates a serious problem with the printer electronics.	Contact your authorized service representative.
One side of receipt is missing.	This indicates a serious problem with the printer electronics.	Contact your authorized service representative.

8.2.4 Auto Cutting Problems

Problem	What to Do	What to Do
The ticket is out of the printer, but the cutter does not cut.	Cut command is not used correctly.	Review the User Manual command sets.
	Faulty cutter.	Contact your authorized service representative.
Total cuts instead of partial cuts.	Un-adapted partial cut setting	Contact your authorized service representative.
Cutter jam.	Paper used is too thick. Intrusion of external object.	<p><u>Auto-cutter</u>: Check that the mobile blade does not interfere with the cover blade.</p> <p>Remove the Paper jam button. Using a screwdriver; turn the gear until the blade disappears.</p> <p>Then open the cover and check that there is no paper jam.</p> <p>Important: Do not press on the switch when the cover is opened.</p> <p>Then close the cover.</p> <p>If the LED is still flashing, see LED diagnostic.</p> <p>Then close the cover.</p> <p>If the LED is still flashing, see LED diagnostic.</p>

9 CLEANING YOUR PRINTER

Depending on the environment in which the printer is used, it can accumulate dust. Therefore it is necessary to clean it periodically to maintain a good print quality. The cleaning period depends on the environment and the usage of the printer, but the print head should be cleaned at least once a year or up to one month in heavy duty applications.

Cleaning Instructions:

- Unplug the printer. **Never clean the head immediately after printing, the head may be hot.**
- Open the cover, clean the heating dots line of the head with a cotton stick containing a solvent alcohol (ethanol, methanol, or IPA) but **do not touch the print head with your fingers!**
- Allow the solvent to dry and close the cover.
- N.B **AXIOHM can provide cleaning kits Ref: CK60000A**